

Tortricini (Lepidoptera: Tortricidae) of the Korean Peninsula

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Abstract Thirty nine species of Tortricini are listed on the basis of literature data and the collections mentioned below. Two new species are described, some remarks on two other species are given, and 11 species are reported for the first time from Korean Peninsula.

Key words systematics, faunistics, Tortricini, Tortricidae, Lepidoptera, Korea.

INTRODUCTION

The data on the Tortricidae of Korean Peninsula are dispersed in the literature and the only summary of its fauna was published by Park in 1983. The work dealing with the Lepidoptera of North Korea in Poland was started with the general paper by Razowski (1989) but the Tortricidae part is not published yet. So, it seems justifiable to publish this paper as the first part of the revision of the family in question. The work is based on materials deposited in the Center for Insect Systematics, Kangweon National University, Chuncheon, Korea, the Institute of Systematics and Evolution of Animals, PAS, Kraków, Poland, and the Hungarian Natural History Museum, Budapest, Hungary.

The authors have decided to treat the tribe Tortricini as it is one of the best known group of the Lepidoptera, at least of so called "micros". The majority of the Tortricini of the Korean Peninsula belong to the Manchurian zoogeographical element represented by 30 species. Two species (*Spatalistis egesta*, and *Acleris arcuata*) formerly treated (Razowski, 1986) as belonging to the Japanese element proved now to be the Manchurian species. It is supposed that two Korean species described in this paper (*A. obligatoria* and *A. praeterita*) may also belong in that element. There are only three Eurosiberian species, two Palaearctic, one Siberian, and two Holarctic species. The distribution of *Acleris enitescens* is very interesting. Most probably it is of Oriental origin but entered our region distributing mainly along coast of East Asia and colonizing the Japanese Islands and reaching Kunashir I. in the Kurile Is..

The fauna of Tortricini of the area studied is almost identical with that of Primorsk and very close to the Japanese Fauna. The number of the Korean Tortricini taxa may increase as some of species treated until now as endemic of Primorsk (2 species) or Japan, especially those distributed main-

ly in Honsyu (22 species) may prove to be of broader repartition like already mentioned *S. egesta* and *A. arcuata* (Razowski, 1986). Also some widely distributed taxa as the Eurosiberian or the Palaearctic species may be found in Korean Peninsula.

The descriptions, illustrations and synonymies of all Palaearctic species are in the work by Razowski (1984), the arrangement of the species is after the catalogue of Tortricidae (Razowski, in press), and that of the genera in the monograph by the same author (Razowski, 1987). The holotypes of the new species are deposited in the collection of the Center for Insect Systematics, Kangweon National University, two paratypes of *Acleris praeterita* sp. nov. in that of the Institute of Systematics and Evolution of Animals.

The authors would like to express the gratitude to the authorities of the Hungarian Natural History Museum, Budapest for the loan of the material for study.

Abbreviations used

CIS/KWNU—Center for Insect Systematics, Kangweon National University, Chuncheon, Korea.

HNHM—Hungarian Natural History Museum, Budapest, Hungary.

ISEA—Institute of Systematics and Evolution of Animals, P.A.S., Kraków, Poland.

DESCRIPTIONS AND NOTES

Acleris obligatoria sp. nov. 꼬마노랑잎말이 (新稱)

Wing expanse: 14 mm. Labial palpus 1.5 times longer than the diameter of eye, creamy in colour, with terminal joint paler apically; remaining parts of head creamy; thorax creamy ferruginous. Forewing similar in the shape to that in *A. pulchella* Kawabe, with termen weakly concave below apex. Ground colour pale ochreous preserved in basal and terminal areas; posterior half of costa more white; remaining area of wing ochreous tinged brownish; costa at base brownish, subcostal area paler, with weak violet hue; similar, brownish, rather glossy suffusion posterior to pale basal area at dorsum; black dots in median and in subapical area of wing; refractive pattern pearl. Fringes ochreous brown at mid-apex and in dorsal third, otherwise white; base orange below vein M3. Hindwing pale brownish grey, with paler fringes.

Female genitalia (fig. 1). Similar to that in *A. fuscotogata* (Walsingham) but colliculum not differentiated, sclerite of ductus bursae rather weak, situated in its median portion; anterior edge of sterigma well sclerotized, very slender.

Type material. Holotype: Female, Gwangleung, S. Korea, 27.VI.1986—K. T. Park et U. Park (gen. slide no. 2553/Park). Paratype: 1 ♀, same locality as holotype, 10.VII.1990—K. T. Park (gen. slide no. 2630/Park).

Comments. This species reminds the two above mentioned East Asian species; it differs from *A. pulchella* in having white part of forewing fringes externally, and in the female genitalia in the shapes of the signum, sclerite of the ductus bursae, and the proximal processes of the sterigma. The male remains unknown.

Acleris praeterita sp. nov. 원추무늬잎말이 (新稱)

Wing expanse. 14 mm. Labial palpus as in preceding species, brownish grey in colour, remaining parts of head similar in colour, thorax brownish grey, base of tegula dark brownish grey. Forewing not expanding terminally; costa beyond base straight; termen weakly oblique, indistinctly concave below apex. Ground colour creamy grey suffused with brownish strigulae grey. Pattern in costal portions dark brown, in dorsal and median parts either atrophied (basal blotch) or much paler; brownish grey spots in distal half of costa, weak ones at termen below apex; similar spots representing posterior edge of basal blotch and anterior edge of median fascia. Fringes concolourous with ground colour. Hindwing brownish grey, more creamy towards base; fringes brownish cream.

Variation. Ground colour varies from creamy grey to creamy ochreous, pattern blackish brown to grey-brown, variably developed. In one paratype more complete than in holotype, with well developed median portion of basal blotch; in terminal half of wing greyish brown shades. Another male paratype with ground colour creamy sprinkled brownish, suffused with brown among veins, and greyish brown pattern developed in form of costal triangle.

Male genitalia (figs. 2,3). Apical lobes of tegumen simple, broad; socius rounded, with fairly long base; subscaphium broad medially, with lateral parts minutely spined and distal portion strongly tapered terminally. Valva and sacculus as in many other species closely related to *A. logiana*. Aedeagus beyond zona slightly bent; cornuti form two groups each consisting of two small, capitate spines and elongate plate-shaped sclerite provided with a small anterior thorn.

Female genitalia (fig. 4). Sterigma rather short, provided with long, tapering terminally, acute proximal processes; colliculum uniformly broad, with tubular sclerite incised distally at ostium bursae, membranous, expanding proximally; posterior portion of ductus bursae broader than anterior part, swung.

Type material. Holotype: Female, Gwangleung, S. Korea, 27.VI.1986—K. T. Park et M. K. Ko (gen. slide no. 2547/Park). Paratypes: S. Korea: 3♂ and 5♀, 13.VIII.1986—K. T. Park et U. Park; 2♂ and 1♀, same data as holotype—K. T. Park et U. Park (gen. slides no. 2437, 2540/Park); 2 specimens (abdomens missing), 7.VIII.1986—K. T. Park et U. Park; 1♀, 27.VI.1981—K. J. Won (gen. slide no. 1321/Park); 1♀, 10.VII.1982—K. T. Park; Chuncheon: S. Korea, 1♂, IV.1990—K. T. Park (gen. slide no. 2562/Park); 1♀, 7.V.1989—K. T. Park (gen. slide no. 2544/Park); 1♀, 7.VII.1987—K. T. Park et U. Park (gen. slide no. 2443/Park). All above mentioned specimens are preserved in the collection of CIS/KWNU, except two paratypes of genitalia slides no. 2549(male) and 2545 which are deposited in ISEA.

Comments. Externally resembling grey coloured specimens of *A. notana* (Donovan). In the genitalia similar to *A. boscana* (Fabricius) but differs in having shorter aedeagus, plate-shaped cornutus, more slender sterigma with much shorter proximal processes and strong sclerite of colliculum. From *A. proximana* (Caradja) it differs in rounded socius, presence of plate-shaped cornutus and the shape of the colliculum which has much shorter sclerite and lacks proximal broadening of the membrane.

Acleris sp. close to *cristana* (Denis & Schiffermüller)

Externally similar to *A. cristana*, which is one of the most variable lepidopteran species. The genitalia also very similar to those in *A. cristana* and *A. hokkaidana* (Razowski & Yasuda) from Japan. The differences are in the shape of the terminal portion of the aedeagus (Fig. 5) provided in this specimen by large thorn with broad base. In the two mentioned species this thorn is much smaller, not expanding basally, situated on large prominence of the aedeagus wall. There is also another Japanese species, *A. azumina* Yasuda & Kawabe, which certainly belongs to this group, known of the female only, thus not comparable with our specimen.

Acleris perfundana Kuznetsov

In the series of specimens collected at same locality, there is one with the colliculum (fig. 6) devoid any sclerite which is well developed in all other examined examples of this species (fig. 7). We treat it as a infraspecific variation only.

LIST OF SPECIES

1. *Paratorna cuprescens* Falkovitsh, 1965 두줄둥근잎말이

Paratorna cuprescens Falkovitsh, 1965, Ent. Obozr., 44: 421, fig.11.

Material examined. <S. Korea>: 2♂, Gwangleung, 30-31.V.1986—K. T. Park & M. K. Ko coll. CIS/KWNU.

Manchurian species.

2. *Paracroesia abievora* Issiki, 1961 새각시잎말이

Epagoge abievora Issiki, 1961, Shinjozu Kagai Shogarui, : 34, fig.23.

Material examined. <S. Korea>: 2♀, Gwangleung, 27.VI.1986—K. T. Park & U. Park; 1♀, Sogumgang, 7.VII.1988—K. T. Park. Above specimens are in coll. CIS/KWNU.

Manchurian species.

3. *Spatalistis christophana* (Walsingham, 1900) 크리스토프잎말이

Tortrix christophana Walsingham, 1900, Ann. Mag. nat. Hist., (7)5:455.

Material examined. <S. Korea>: 3♀, Chunsung, 17.VII.1985—K. T. Park; 1 specimen, Chunsung, 20.VII.1987—K. T. Park & U. Park; 1♀, Mt. Seolak-san, 10.VIII.1989—K. T. Park; 1♂ and 1♀, Mt. Seolak-san, 25.VIII.1989—K. T. Park; 1♀, Mt. Odae-san, 26.VI.1989—K. T. Park. All specimens in coll. CIS/KWNU. <N. Korea>: Wonsan (=Gensan), type-locality of *Tortrix exuberans* (Walsingham, 1900) which is a synonym of this species.

Manchurian species.

4. *Spatalistis egesta* Razowski, 1974 층층나무잎말이

Spatalistis egesta Razowski, 1974, Acta zool. cracov., 19 (8): 147, figs. 1–3.

Material examined. <S. Korea>: 1♀, Gwangleung, 8.VI.1977, J. S. Lee; 1♂, Sogumgang, 8.VIII.1988–K. T. Park; 1♀, Sogumgang, 24.V.1988–K. T. Park; 1♂, Mt. Seolak-san, 25.VIII.1989–K. T. Park; 2♀, Dunnae, Hwaengsung, 7.VII.1990–K. T. Park; 1♂, Chuncheon 9.VIII.1990–K. T. Park. All specimens in coll. CIS/KWNU.

Manchurian species, until now known from Japan (Honshu).

5. *Tortrix sinapina* (Butler, 1897) 그물노랑잎말이

Pandemis sinapina Butler, 1879, Ill. Type Specimens Lepid. Het. Colln Br. Mus., 3: 78.

Material examined. <N. Korea>: A few specimens collected in Mt. Myohyang-san (Hyang-San Chou Valley), Mt. Kumgang-san and Samjiyon, 1450 m, near Mt. Paekdu-san; VI–VIII, by E. Palik, coll. ISEA.

Manchurian species.

*6. *Acleris crataegi* (Kuznetsov, 1964) 점노랑잎말이 (新稱)

Ergasia crataegi Kuznetsov, 1964, Entom. Obozr., 43: 877, figs. 8,9.

Material examined. <S. Korea>: 1♂, Mt. Samag-san, 13.VI.1990–B. K. Byun; 1♀, Chuncheon, 12.VI.1989–K. T. Park et B. K. Byun, coll. CIS/KWNU.

New to the Korean fauna. Manchurian species.

7. *Acleris leechi* (Walsingham, 1900) 리치잎말이

Tortrix leechi Walsingham, 1900, Ann. Mag. nat. Hist., (7)5:454.

Material examined. <S. Korea>: 3♀, Gwangleung, 27.VI.1986–K. T. Park & M. K. Ko. coll. CIS/KWNU; 1♀, Gwangleung, 3.VI.1988–K. T. Park. coll. CIS/KWNU. <N. Korea>: several specimens from Samjiyon, Mt. Myohyang-san, Mt. Kumgang-san; VI–VII, taken by E. Palik. Coll. ISEA.

Remarks. Park (1975) mentioned one specimen from Wonsan from Leech collection, then Park (1983) and Razowski (1986) recorded it from Korea.

Manchurian species.

*8. *Acleris arcuata* (Yasuda, 1975) 갈색어깨무늬잎말이 (新稱)

Croesia arcuata Yasuda, 1975, Bull. Univ. Osaka Pref., (B)27: 195, figs. 223, 546, 666.

Material examined. <N. Korea>: Single specimen taken at Mt. Kumgang-san, 16–19.VII.1985–E. Palik, coll. ISEA.

New to continental Asia and Korean Peninsula. Certainly Manchurian in distribution.

*9. *Acleris sinica* (Razowski, 1966) 두줄무늬잎말이 (新稱)

Croesia sinica Razowski, 1966, World Fauna Tortricini, Krakow: 498.

Material examined. <N. Korea>: Single specimen, Mt. Myohyang-san, (Hyangsan Chou Valley),

1450m, 10.VI.1983 – E. Palik, coll. ISEA.

New to Korean Peninsula. Manchurian species, also known from China (Tien-mu-shan).

10. *Acleris conchyloides* (Walsingham, 1900) 노랑띠무늬잎말이

Tortrix conchyloides Walsingham, 1900, Ann. Mag. nat. Hist., 7(5):453.

Material examined. <S. Korea>: 1♀, Mt. Yumyeong-san, 17.VI.1990 – S. H. Oh & H. Y. Choi; 1 specimen, Gwangleung, 27.VI.1986 – K. T. Park & U. Park; 4♂ and 5♀, Mt. Samak-san, 22.VI.1989 – K. T. Park & B. K. Byun; 2♂ and 5♀, Mt. Samak-san, 13.VI.1990 – B. K. Byun; 1♂, Chuncheon, 30.V.1989 – K. T. Park; 1♂ and 1♀, Chuncheon, 11.VI.1989 – K. T. Park & B. K. Byun; 1♀, Chuncheon, 2.VII.1989 – K. T. Park & B. K. Byun; 2♀, Mt. Gyeonggang-san, 2.VIII.1989 – K. T. Park; 2♂ and 5♀, Seomyun, Yangyang, 30.VI.1987 – K. T. Park; 1♂ and 1♀, Seomyun, Yangyang, 4. VI. 1987 – K. T. Park; 1♀, Hongcheon Exp. Forest, 30.VI.1988 – K. T. Park; 1 specimen (abdomen missing), Hyangrobon, 11.VI.1987 – K. T. Park & U. Park. All specimens in coll. CIS/KWNU. <N. Korea>: Numerous specimens collected in Mt. Myohyang-san (Hyang-San Chou Valley), 1450 m, VI-VII.1985 – E. Palik, coll. ISEA.

Manchurian species.

11. *Acleris askoldana* (Christoph, 1881) 아스콜드잎말이

Tortrix askoldana Christoph, 1881, Bull. Soc. Nat. Moscou, 56(1): 70.

Material examined. <S. Korea>: Gwangleung, VIII.1982 (Park, 1983); 2♀, Mt. Odae-san, 6. VIII.1989 – K. T. Park & B. K. Byun; 1♀, Chuncheon, 8.VIII.1985 – K. T. Park. All specimens in coll. CIS/KWNU.

Manchurian in distribution.

12. *Acleris aurichalcana* (Bremer, 1864) 피나무잎말이

Lozotaenia aurichalcana Bremer, 1864, Mem. Acad. Imp. Sci. St., (7)8: 89, pl. 7 fig. 22.

Material examined. <S. Korea>: Mt. Odae-san, IX. 1976 (Park, 1983); 3♂ and 9♀, Mt. Gyeonggang-san, 2.VIII.1989 – K. T. Park & B. K. Byun; 4♂ and 8♀, Mt. Gyeonggang-san, 24.VIII.1989 – K. T. Park; 2♀, Mt. Odae-san, 6.VIII.1989 – K. T. Park; 2♀, Mt. Yaksu-san, 9.VIII.1989 – K. T. Park & B. K. Byun; 1♀, Mt. Odae-san, 12.IX.1976 – K. T. Park. All specimens in coll. CIS/KWNU.

Manchurian species.

*13. *Acleris enitescens* (Meyrick, 1912) 명석딸기잎말이 (新稱)

Peronea enitescens Meyrick, 1912, Exot. Microlepid., 1:16.

Material examined. <S. Korea>: One specimen from Mt. Daedoon-san, 18.V.1990 – K. T. Park, coll. CIS/KWNU.

New to Korean Peninsula. Oriental element entering East Palaearctic Asia.

Host plant: *Rubus microphyllus* L. has been known from Japan. (Yasuda, 1975).

14. *Acleris albiscopulana* (Christoph, 1881) 알비스잎말이

Teras albiscopulana Christoph, 1881, Bull. Soc. Nat. Mousou, 56:63.

Material examined. <S. Korea>: one specimen, Chuncheon, 15.V.1985—K. T. Park; 1 ♀, Suweon, 19.VI.1976, S. C. Han; 1 ♀, Chuncheon, 7.V.1989—K. T. Park; 1 ♀, Mt. Odae-san, 22.V.1989—K. T. Park; 1 ♀, Chuncheon, 16.V.1990—K. T. Park; 1 ♂, Mt. Samak-san, 22.V.1990—K. T. Park; 1 ♂, Mt. Hanra-san, Jeju Isl., 27.V.1987—M. K. Ko. All specimens in coll. CIS/KWNU. Park (1983) reported from Namhansansung (X.1974).

Manchurian species.

15. *Acleris comariana* (Zeller, 1846) 아그배잎말이

Teras comariana Zeller, 1846, Isis: 262.

Material examined. <S. Korea>: Mt. Seolak-san, X.1974 (Park & Park); Suweon, X.1974 (Park, 1983). <N. Korea>: 1 ♂ and 1 ♀, Mt. Kumgang-san, 24.XI.1979—Steinmann & Vojnits, coll. HNHM.

Remark. Park & Park(1976) also mentioned Leech data from Wonsan, N. Korea.

Holarctic species.

16. *Acleris laterana* (Fabricius, 1794) 버들잎말이

Pyrallis laterana Fabricius, 1794, Ent. syst., 3 (2): 264.

Material examined. <S. Korea>: 3 ♂ and 1 ♀, Mt. Odae-san, 26.VI.1989—K. T. Park & B. K. Byun; 1 specimen, Mt. Seolak-san, 15.X.1983—K. T. Park; 1 ♂, Hongcheon Exp. Forest, 6.VI.1986—K. T. Park; 1 ♀, Mt. Seolak-san, 1.XI.1986—K. T. Park; 3 ♂, Mt. Chiak-san, 28.V.1982, D. J. Im; 1 ♂, Mt. Dusol-san, 14. VI. 1987—K. T. Park & U. Park; 1 ♂, Chuncheon, 7.VI.1990—K. T. Park; 1 ♀, Chuncheon, 12.VI.1990—K. T. Park & B. K. Byun. All specimens in coll. CIS/KWNU. <N. Korea>: 5 ♂ and 5 ♀, Mt. Kumgang-san, 25.IX.1979—Steinmann & Vojnits, coll. HNHM.

[Remarks. Mt. Seolak-san, X.1974 (Park, 1976) and Mt. Chiak-san, V.1982 (Park, 1983), in both papers under the name *Acleris latifasciana* (Haworth) which was synonymized with *laterana* (Karsholt & Nielson, 1976).

Eurosiberian species.

17. *Acleris kodamai* Yasuda, 1965 광능살이잎말이

Acleris kodamai Yasuda, 1965, Bull. Univ. Osaka Pref., (B)17:16, figs. 8, 88.

Material examined. <S. Korea>: 1 ♀, 6.IV.1985—K. J. Won, coll. CIS/KWNU.

Manchurian species.

18. *Acleris platynotana* (Walsingham, 1900) 평행줄잎말이

Oxygrapha platynotana Walsingham, 1900, Ann. Mag. nat. Hist., (7)5: 376.

Material examined. <S. Korea>: 1 ♂, Cheongryang-ri, Seoul, 28.III.1985—K. J. Won; 1 specimen, Chuncheon, 26.VI.1985—K. T. Park; 1 ♀, Sil-Lin, 5.X.1972—S. M. Lee; 2 ♀, Chuncheon, 21.III.1990—K. T. Park & B. K. Byun; 1 ♀, Mt. Chiak-san, 3.X.1972—S. M. Lee. All specimens in coll. CIS

/KWNU. Park (1983) reported it from Mt. Chiak-san(X.1972).

Manchurian species.

*** 19. *Acleris submaccana* (Filipjev, 1962) 큰점무늬잎말이 (新稱)**

Peronea submaccana Filipjev, 1962, Trudy zool. Inst. Leningr., 30: 379, fig. 16.

Material examined. <S. Korea>: 1♀, Gwangleung, 7.XI.1986—K. J. Won; 1♂, Chuncheon, 16. V.1990—K. T. Park, coll. CIS/KWNU. New to Korean Peninsula.

Siberian species.

Host plants. *Betula platyphylla* S. and *Alnus maximowiczii* C. have been known from Japan. (Yasuda, 1975)

*** 20. *Acleris obligatoria* Park & Razowski (see p 2) 꼬마노랑잎말이 (新稱)**

21. *Acleris issikii* Oku, 1957 애우묵잎말이

Acleris issikii Oku, 1957, Ins. Mats., 21: 74.

Material examined. <S. Korea>: 1♀, Mt. Odae-san, 26.VI.1989—K. T. Park; 1♂ and 1♀, Chuncheon, 7.VI.1990—K. T. Park; 1♂, Mt. Samak-san, 13.VI.1990—K. T. Park. All specimens in coll. CIS/KWNU. <N. Korea>: one specimen Mt. Myohyang-san (Hyangsan—Chou Valley), 1450 m, 7.VI.1985—E. Palik, coll. ISEA. Park (1983) reported it from Suweon (V.1982).

Manchurian species.

*** 22. *Acleris emargana* (Fabricius, 1775) 허리가는잎말이 (新稱)**

Pyralis emargana Fabricius, 1775, Syst. Ent., : 651.

Material examined. <N. Korea>: one example collected near Samjiyon, Mt. Paekdu-san (Razowski, 1986).

Holarctic species.

Host plants. *Salix* sp., populus spanol and *Betula* sp. have been known from Poland(Razowski, 1966)

23. *Acleris exsucana* (Kennel, 1901) 그물무늬잎말이

Rhacodia exsucana Kennel, 1901, Dt. ent. Z. Iris, 13: 208.

Material examined. <S. Korea>: Namhansansung, XI.1977 and Gwangleung, IX.1974 (Park & Park, 1976); 1♂, Suweon, 16.IX.1977—M. O. Yum; 1♂ & 1♀, Namhansansung, 6.XI.1974—Y. I. Lee. All specimens in coll. CIS/KWNU.

Manchurian species.

24. *Acleris umbrana* Hübner, [1799] 검줄무늬잎말이

Tortrix umbrana Hübner, [1799], Samml. Eur. Schmett., :7, pl. 10:59.

Material examined. <S. Korea>: 2♀, Gwangleung, 31.XI.1982—K. J. Won; 1♂, Gwangleung, 31.XI.1982—K. J. Won; 3, Seomyun, Yangyang, 30.VI.1987—K. T. Park; 1♂, Chuncheon, 22. V.

1984—K. T. Park. All specimens in coll. CIS/KWNU.

Eurosiberian species.

*25. *Acleris* sp. near *crisana* (See p 4) 끝뿔족잎말이 (新稱)

26. *Acleris pulchella* Kawabe, 1963 노랑잎말이

Acleris pulchella Kawabe, 1963, Trans. Lepid. Soc. Jap., 14(3): 71.

Material examined. <S. Korea>: Gwangleung, XI.1974 (Park & Park, 1976), specimen reexamined by the second author. <N. Korea>: 3♂ and 1♀, Haeju, Mt. Suyong-san, 17.X.1987—Kovsas & Ronkay, coll. HNHM.

Manchurian species.

27. *Acleris uniformis* (Filipjev, 1931) 갈색무늬잎말이

Peronea uniformis Filipjev, 1931, Ann. Mus. zool. Acad. USSR, 31: 512.

Material examined. <S. Korea>: Suweon, VI, VII, IX, III, (Park & Park, 1976); 1♂, Gwangleung, 10.VII.1982—K. T. Park, coll. CIS/KWNU. Park & Park (1976) reported with specimens from Suweon (III-IX).

Manchurian species.

*28. *Acleris hispidana* (Christoph, 1881) 어리큰점잎말이 (新稱)

Teras hispidana Christoph, 1881, Bull. Soc. imp. Nat. Moscou, 56: 61.

Material examined. <S. Korea>: 2♀, Gwangleung, 29.III.1990—K. T. Park, coll. CIS/KWNU.

New to the Korean fauna. Manchurian species.

Host plant. *Quercus mongolica* F. has been known from Poland (Razowski, 1961)

29. *Acleris perfundana* Kuznetsov, 1962 물참잎말이

Acleris perfundana Kuznetsov, 1962, Trudy zool. Inst., Leningr., 30: 337. 338.

Material examined. <S. Korea>: 3♂, Cheongryang-ri, Seoul, 24–27.III.1985—K. J. Won; Gwangleung, IX.1974 (Park, 1983); 1♀, Mt. Seolak-san, 10.VIII.1989—K. T. Park & B. K. Byun; 1♂ and 1♀, Gwangleung, 29.III.1990—K. T. Park; 1♂, Chuncheon, 15.V.1985—K. T. Park; 1♂, Chuncheon, 2.IV.1985—K. T. Park; 1♂, Chuncheon, 6.VI.1989—K. T. Park & B. K. Byun; 3♀, Namhae, 25.VII.1985—K. T. Park; All specimens in coll. CIS/KWNU. <N. Korea>: Pyongyang, Mt. Yongak-san, (Razowski, 1986); Mt. Kumgang-san, VII.1985—E. Palik, coll. ISEA.

Manchurian species.

30. *Acleris affinatana* (Snellen, 1883) 상수리잎말이

Teras affinatana Snellen, 1833, Tijdschr. Ent., 26: 185.

Oxygrapha pryerana Walsingham, 1900, Ann. Mag. nat. Hist., (7)5: 376.

Material examined. <S. Korea>: Following materials from Gwangleung: 2♂ and 2♀, Cheongryang-ri, Seoul, 25–27.III.1985—K. J. Won; 1♂, 13.VIII.1986—K. T. Park & M. K. Ko; 1♂

and 1 ♀, 4.VIII.1988—K. T. Park; 1 ♀, 27.VI.1986—K. T. Park & U. Park. 1 ♀, Mt. Yeogi-san, 19.VIII.1983—Y. I. Lee; 1 ♀, Mt. Yeogi-san, Suwoen, 19.VIII.1983—D. J. Im; 1 ♀, Suwoen, 1.IV.1983—S. B. Ahn; 1 ♀, Mt. Samak-san, 19.VII.1989—K. T. Park; 3 ♂ and 10 ♀, Mt. Palbong-san, 10.IV.1985—K. T. Park; From Chuncheon: 1 ♂ and 5 ♀, 21.III.1990—K. T. Park & B. K. Byun; 1 ♂ and 3 ♀, 1.V.1989—K. T. Park & B. K. Byun; 2 ♂ and 3 ♀, 15.V.1985—K. T. Park; 1 ♀, 29.III.1990—K. T. Park; 2 ♀, 7.V.1989—K. T. Park & B. K. Byun; 1 ♀, 21.VI.1985—K. T. Park; 1 ♂, 10.IV.1990—K. T. Park; 1 ♀, 19.V.1987—K. T. Park; 1 ♀, 6.V.1990—K. T. Park; 1 ♀, 16.V.1990—K. T. Park; 2 ♂, 20.VII.1987—K. T. Park & U. Park; 1 ♀, 7.VII.1987—K. T. Park & U. Park; All specimens in coll. CIS/KWNU. <N. Korea>: Pyongyang (Razowski, 1986).

Manchurian species.

31. *Acleris ulmicola* (Meyrick, 1930) 참느릅잎말이

Peronea ulmicola Meyrick, 1930, Exot. Microlepid., 3: 612.

Material examined. <S. Korea>: 1 ♂, Gwangleung, 5.IV.1984—K. J. Won; 1 ♀, Daechon, 28.VI.1985—S. S. Han; 1 ♀, Mt. Yeogi, 17.VI.1983—Y. I. Lee; 2 ♀, Cheongryang-ri, 27—28.III.1985—K. J. Won. All specimens in coll. CIS/KWNU.

Manchurian species.

Remarks. Korea (Razowski, 1986), Gwangleung, VI.1957(Park, 1983), in other papers Park (1975), and Park & Park(1976) mentioned this species without precise data, all under the name *Acleris boscana ulmicola*.

Manchurian species.

***32. *Acleris proximana* (Caradja, 1927) 하얀무늬잎말이 (新稱)**

Acalla proximana Caradja, 1927, Acad. Rom. Mem. sect. Stiint., 3: 392, 418.

Material examined. <S. Korea>: Two female specimens collected in Seomyun, Yangyang, 25.VII.1987—K. T. Park, coll. CIS/KWNU.

Manchurian species.

33. *Acleris praerita* Park & Razowski (see p.3) 원추무늬잎말이 (新稱)

34. *Acleris takeuchii* Razowski & Yasuda, 1964 세모무늬잎말이

Acleris takeuchii Razowski & Yasuda, 1964, Trans. Lepid. Soc. Jap., 14(4): 86.

Material examined. <S. Korea>: From Gwangleung: 1 ♂, 4, 29.III.1990—K. T. Park; 3 ♂, 31.V.1986—K. T. Park & M. K. Ko; 2 ♀, 5.XI.1974—Y. I. Lee; 1 ♂, 17.V.1988—K. T. Park; 1 ♂, 15.V.1982—K. T. Park; 1 ♀, 10.VII.1982—K. T. Park; 1 ♀, 4.VIII.1988—K. T. Park; 1 ♀, 1.VII.1990—K. T. Park; 1 ♀, Mt. Myungji-san, 25.V.1990—K. T. Park & B. K. Byun from Chuncheon: 2 ♂ and 7 ♀, 1.V.1989—K. T. Park & B. K. Byun; 3 ♂, 16.V.1986—K. T. Park; 3 ♀, 22.V.1985—K. T. Park; 1 ♂ and 4 ♀, 7.V.1989—K. T. Park; 1 ♀, 21.VI.1985—K. T. Park; 1 ♂, 21.III.1990—K. T. Park & B. K. Byun; 1 ♂ and 5 ♀, 15.V.1985—K. T. Park; 1 ♀, 16.V.1989—K. T. Park; 1 ♀, 6.V.1990—K. T. Park; 1 ♀, 10.IV.1990—K. T. Park; 1 ♂ and 1 ♀, 20.VIII.1990—D. S. Park & S. Y. Joo. 1 ♂ and 3 ♀,

Chugok, 30.VII.1986—K. T. Park; 1♂, Hongcheon Exp. Forest, 20.V.1987—K. T. Park; 2♀, Yangyang, 30.V.1987—K. T. Park; 1, Sogumgang, 7.VII.1988—K. T. Park; 1♂, Mt. Jiri-san, 23.VIII.1985—K. T. Park. All above mentioned specimens are in coll. CIS/KWNU. Park & Park (1976) reported it from Namhansansung and Gwangleung (XI, 1974). <N. Korea>: 1♂, Mt. Kumgang-san, 4-6.VIII.1975—Papp & Vojnits; 1♀, Mt. Kumgang-san, 28.IX.1979—Steinmann & Vojnits; 1, Haeju, Mt. Suyong, 17.X.1987—Kovsas & Ronkay. Above specimens are in coll. HNHM. Manchurian species.

* 35. *Acleris amurensis* Caradja, 1928 아무르잎말이 (新稱)

Acalla roscidana amurensis Caradja, 1928, Dt. ent. Z. Iris, 42: 293.

Material examined. <N. Korea>: 1 specimen, Samjiyon, Mt. Paekdu-san, 5.VI.1985—Vojnits & Zombori, coll. HNHM.

Manchurian species.

* 36. *Acleris rufana* ([Denis & Schiffermüller], 1775) 북방잎말이 (新稱)

Tortrix rufana [Denis & Schiffermüller], 1775, Syst. Verz. Schmett. Wien. Geg.: 129.

Material examined. <N. Korea>: 1 specimen, Mt. Daesung-san, 17.VI.1985—Vojnits & Ronkay, coll. HNHM.

Palaearctic species.

37. *Acleris expressa* Filipjev, 1931 파도무늬잎말이

Peronea expressa Filipjev, 1931, Ann. Mus. Acad. Sci. USSR, 31: 517, pls. 24:3, 31:2.

Material examined. <S. Korea>: 1♀, Mt. Deogyu-san, 1.X.1984—S. B. Ahn, coll. CIS/KWNU.

Manchurian species.

* 38. *Acleris lacordairana* (Duponchel, 1836) 눈썹무늬잎말이 (新稱)

Peronea lacordairana Duponchel, 1836, Hist. nat. Lepidopteres Papillons France, 9: 562, pl.266 fig.1.

Material examined. <S. Korea>: 1♂, Mt. Samak-san, 19.VII.1989—K. T. Park et B. K. Byun; 1♀, Gwangleung, 29.III.1990—K. T. Park, coll. CIS/KWNU.

Host plant. *Ulmus* sp. has been known from Poland (Razowski, 1966)

Remarks. New to Korean Peninsula. The Korean specimens belong to the nominate subspecies which is distributed in mountains and northern parts of Europe and Asia. Two other subspecies are known from Caucasus and Japan.

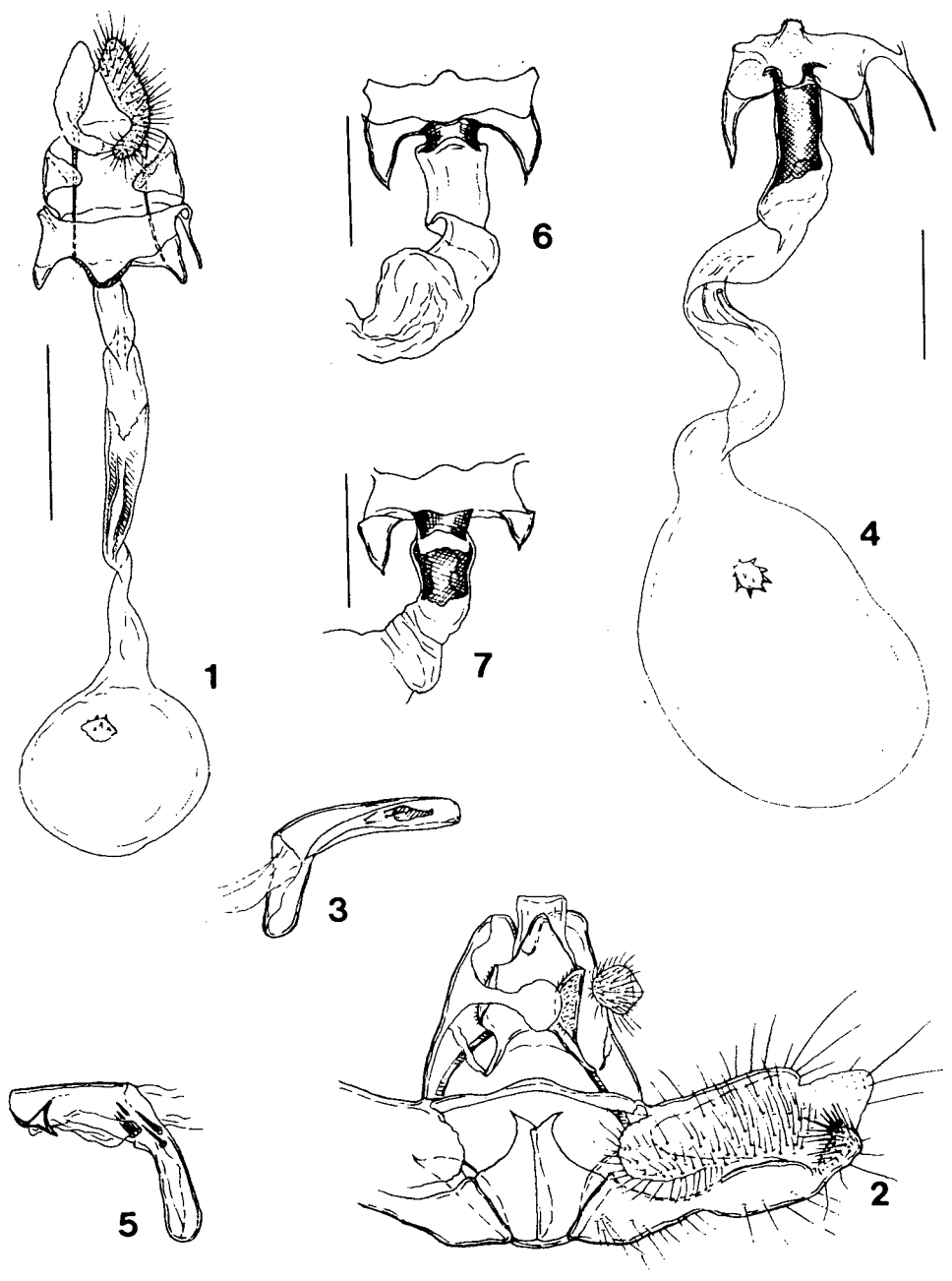
Eurosiberian species.

39. *Acleris fimbriana* (Thunberg, 1791) 복숭아잎말이

Tortrix fimbriana Thunberg & Becklin, 1791, Diss. Ent., 2: 44.

Material examined. <S. Korea>: Suweon, VII.1980, XI.1974 (Park, 1983). one specimen, Chuncheon, 29.5.1984—K. T. Park.

Remarks. In the previous papers (Park, 1975; Park & Park, 1976) given under the name of its synonym *A. croceopepla* (Meyrick), without any precise data. Palaearctic species.



Figs. 1-7. Male and female genitalia of *Acleris* Hübner: 1. *A. obligatoria* sp. n., holotype; 2,3. *A. praeterita* sp. n., paratype, genitalia slide 2562/Park/; 4. Holotype of same species; 5. Aedeagus of *Acleris* sp. near *A. cristana* sp. n.; 6. Sterigma with posterior part of ductus bursae of *A. perfundana* Kuznetsov, genitalia slide no. 2569/Park/, with sclerite of colliculum missing; 7. same species and locality, genitalia slide no. 2446/Park/. (scale bars:0.5mm).

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韓國產 무늬잎말이나방族(나비目; 잎말이나방科)의 分類

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현재까지 南韓에서 채집된 標本과 폴란드의 동물계통분류진화연구소에 보관된 北韓產 標本을 대상으로 分類·同定한 결과 韓國產 무늬잎말이나방族은 총 39種으로 정리된다. 이중 北韓產 2種이 新種으로 새로이 記載되며 11種의 未記錄種이 우리나라에서는 처음으로 報告된다.

검색어 : 分類, 무늬잎말이나방族, 잎말이나방科, 나비目, 한국

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